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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/806,239   | 03/23/2004  | Itsuji Minami        | 5670-0102PUS1       | 9656             |
| 2292 7590 05/28/2008<br>BIRCH STEWART KOLASCH & BIRCH<br>PO BOX 747<br>FALLS CHURCH, VA 22040-0747 |             |                      |                     |                  |
| EXAMINER   |             |                      |                     |                  |
| MISLEH, JUSTIN P   |             |                      |                     |                  |
| ART UNIT   |             | PAPER NUMBER         |                     |                  |
| 2622   |             |                      |                     |                  |
| NOTIFICATION DATE  |             | DELIVERY MODE        |                     |                  |
| 05/28/2008   |             | ELECTRONIC           |                     |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

# Office Action Summary

**Application No.**

10/806,239

**Applicant(s)**

MINAMI ET AL.

**Examiner**

JUSTIN P. MISLEH

**Art Unit**

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to Claim 1 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claim 1** is rejected under 35 U.S.C. 103(a) as being unpatentable over Minami et al. (US 6,040,612) in view of Kim et al. (US 7,138,695 B2).

4. For **Claim 1**, Minami et al. disclose, as shown in figures 1(A) – 1(D), an imaging apparatus comprising:

an imaging portion (20) in which a cover glass (22) is adhered to an imaging surface side (S) of a solid-state image pickup device (20) as if sandwiching leads (21), a slight air gap (D) is formed between the cover glass (22) and the imaging surface (S) of the solid-state image pickup device (20) and a circumference of the cover glass (22) is larger than the solid-state image pickup device (20 – clearly shown in figure 1(D)), and

a circuit board (24) having an accommodation portion (space between through holes 25 and 24A) for accommodating the solid-state image pickup device (20)) so as to connect the leads

(21) to terminals on an upper edge of the accommodation portion (leads 21 are attached to the circuit board 24 and to that solid-state image pickup device 20 residing in the accommodation portion),

wherein the portion (space between through holes 25 and 24A) for accommodating the solid-state image pickup device (20)) forms a clearance between an adhesion area between the solid state image sensor (20) and the cover glass (22), and an adhesion area between the cover glass (22) and the circuit board (24; see Examiner's explanation below);

wherein the circumference of adhesion area between the cover glass (22) and the circuit board (22) adheres to the circuit board (24) in a state of sealing the accommodation portion (figure 1(C) shows where the outer adhesion area is applied to all sides of the accommodation portion).

The Examiner respectfully notes the accommodation portion is rectangular with top, bottom, left, and right sides. There are at least two adhesion areas on each of the left and right sides. For instance, on the left side, as seen in figures 1(C) and 1(D), there is an adhesion area between the sensor (20) and the cover glass (22) at pad G and there is also an adhesion area between the pad H, on the circuit board (24), and the cover glass (22). The same adhesion areas are mirrored on the right sides. The space between the adhesion areas on the left side and the right side corresponds to the claimed "clearance". The claim language does not specify that the "clearance" must be between the adhesion areas on a same side of the cover glass.

However, Minami et al. do not show where the accommodation portion is a concave accommodation portion. In other words, Minami et al. simply shows where the sensor package

is directly inserted into the accommodation portion and does show a housing surrounding the sensor package when inserted in the accommodation portion.

On the other hand, Kim et al. also show an imaging apparatus with a cover glass, sensor, and circuit board. Specifically, Kim et al. teach, in figure 4, an imaging apparatus with a cover glass (18), sensor (11), and circuit board (16), wherein the sensor (11) is seated in a hollow area formed on a side surface of the circuit board (see column 5, line 27 – 45). Additionally, Kim et al. teach where an epoxy resin (19) is molded to a rear surface of the circuit board (16) and the sensor (11). Therefore, the circuit board (16) and epoxy resin (19) in-combination form an accommodation concave portion in the circuit board (16) where the sensor resides.

The Examiner submits it would have been obvious to one with ordinary skill in the art to have incorporated the accommodation concave portion teachings of Kim et al. in the imaging apparatus disclosed by Minami et al. for the advantage of *enhancing air tightness and reliability of the imaging apparatus* (see Kim et al., column 2, lines 11 – 21).

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Justin P Misleh whose telephone number is 571.272.7313. The Examiner can normally be reached on Monday through Friday from 8:00 AM to 5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Lin Ye can be reached on 571.272.7372. The fax phone number for the organization where this application or proceeding is assigned is 571.273.8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**/Justin P. Misleh/  
Examiner, Art Unit 2622  
May 23, 2008**